GNCAGCATTTCCTCTAAGGGATNCAATNNGGCTTGCCCGAGGCCACACTCATTTCCCCATNCCC
TCAAATACTGTGGTGATTAAACATTTCATAGGAGGANTTTATGGATNCCTTTAAAANCCTAATT
CTCCCTGCTTGCCAAATCATTTCTTCTCAGCATCCTGCCCAGCAAAAAANCANCTTNTGATCAA
AATNATCCCCGGAGGCTTNACGGAGGCCAGACCTGCCACAGCAGNAGTCCNGGAGATTGCTGAC
CGGGTCAAAGCACAGCTCGANGAGGAAACCAATGAGAAATATGAAATATTCAAAGCCGTTGAGT
ATAAAACTCAAGTTGTCGCTGGAGTCAATTACTTCATTAAGATGGATGTAGGGGGTGGTTGTTT
CACCCACATAAAAGTCTTCAAGGATCTTTCTGGAAAGAATAATTTGGAACTTACTGGTTACCAG
ACTAACAAAACCGAGGATGATGAGCTGACCTACTTCTAAGCAGCAAATTCTAAAGTGACCTGAT
TCCTCTCATTGTAAACTGATTCGNCCATCAATAAAGAATATTCTCCA (SEQ ID NO:1)

FIGURE 1

underlined = deleted in targeting construct

[ ] = sequence flanking Neo insert in targeting construct

[GNCAGCATTTCCTCTAAGGGATNCAATNNGGCTTGCCCGAGGCCACACTCATTTCCCCA
TNCCCTCAAATACTGTGGTGATTAAACATTTCATAGGAGGANTTTATGGATNCCTTTAAA
ANCCTAATTCTCCCTGCTTGCCAAATCATTTCTTCTCAGCATCCTGCCCAGCAAAAAANC
ANCTTNTGATCAAAATNATCCCCGGAGGCTTNACGGAGGCCAGACCTGCCACAGCAGN]<u>A
GTCCNGGAGATTGCTGACCGGGTCAAAGCACAGCTCGANGAGGAAACCAATGAGAAATAT
GAAATATTCAAAGCCGTTGAGTATAAAACTCAAGTTGTCGCTGGAGTCAATTACTTCATT
AAGATGGATGTAGGGGGTGGTTGTTTCACCCACATAAAAGTCTTCAAGGATCTTTCTGGA
AAGAATAATTTGGAACTT</u>[ACTGGTTACCAGACTAACAAAACCGAGGATGATGAGCTGAC
CTACTTCTAAGCAGCAAATTCTAAAGTGACCTGATTCCTCTCATTGTAAACTGATTCGNC
CATCAATAAAGAATATTCTCCA]

FIGURE 2A

Gene Sequence Structure *

| 238 bp | Sequence Deleted | 436 bp |

Size of EST: 559 bp

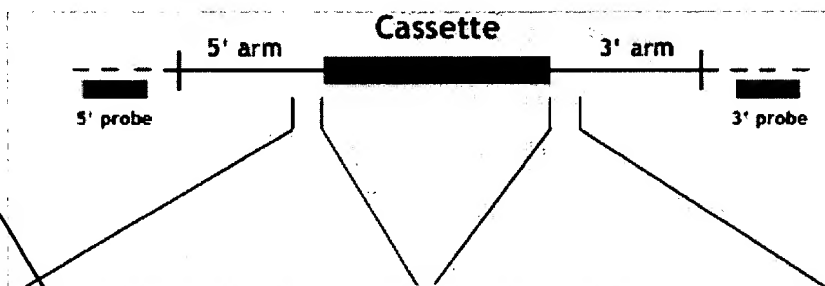## Targeting Vector* (genomic sequence)

Construct Number: 2757

LacZ-Neo

Cassette

5' arm

3' arm

5' probe

3' probe

Arm Length:
5': 1.2 kb
3': 3 kb

——————— Targeting Vector
– – – – – Endogenous Locus

* Not drawn to scale

5'>CGAGGCCACACTCATTTCCCC
ATTCCCTCAGATACTGTGATGATT
ATACATTTGATAGGAGGAGATTAT
GGATACCTTTAAAATTCTAAGTCT
CCCTGCTTGCCAGATCATTTCTTC
TCAGCATTCTGCCCAGCAAAGAAG
CAACTCGTGATCAGAATGATACCC
GGAGGCTTGATGGAGGCCAGACCT
GCCACAGCAGA<3'
(SEQ ID NO:2)

5'>ACTGGTTACCAGACTAACAAA
ACCGAAGATGATGAACTGACCTAC
TTCTAAGCAGCAAATTCTAAAGTC
ACCTGATTCCTCTCATTGTAAACT
GATGCGGCCATCAATAAAGAAATA
TTCTTCAAATAAAAAAAAAAAAGA
AAGAAGCATTCTAACACAATACAA
TCCAAAGATGTACTGATTTGATGT
TACATACTCAG<3'
(SEQ ID NO:3)

FIGURE 2B